Claim Amendments

1. (original) A processing unit for use in a stored program controlled system comprising a plurality of processing units, wherein communication among said processing units is effected by a free space beam line configured to contain optically encoded signals transmitted among said plurality of processing units, said processing unit comprising:

an aperture for passage of said beam line configured to permit installation and removal of said processing unit without blocking said beam line; and

means in said aperture connected to each of said plurality of units for receiving optically encoded signals from said beam line after installation of said processing unit.

2. (original) A processing unit in accordance with claim 1 wherein said processing unit comprises a frame.

3. (original) A processing unit in accordance with claim 2 wherein said processing unit including a removable portion so that said beam line is not blocked during installation.

4. (original) A processing unit in accordance with claim 3 wherein said removable portion of said processing unit is configured to be replaceable after installation without blocking said beam line.

5. (previously presented) A processing unit in accordance with claim 2 wherein said processing unit comprises a board and said means for receiving optically encoded signals from said beam line is movable relative the board to optimally receive said optically encoded signals in said beam line.

6. (previously presented) A processing unit in accordance with claim 2 wherein said processing unit comprises a board and includes means for transmitting optically encoded signals into said beam line is movable relative the board to optimally transmit said optically encoded signals into said beam line.

7. (original) A processing unit in accordance with claim 1 wherein said processing unit comprises a board.

8. (original) A processing unit in accordance with claim 7 wherein said board includes a second aperture.

9. (previously presented) A processing unit in accordance with claim 7 wherein said means for receiving optically encoded signals from said beam line is movable relative the board to optimally receive said optically encoded signals in said beam line.

10. (previously presented) A processing unit in accordance with claim 8 wherein said board includes a second means for receiving optically encoded signals from a second beam line and is movable relative the board to optimally receive said optically encoded signals in said second beam line.

11. (original) A method for installing and removing processing units in a stored program controlled system comprising a plurality of processing units, wherein communication among said processing units is effected by a free space beam line configured to contain optically encoded signals transmitted among said plurality of processing units, said method comprising the steps of:

providing an aperture in said processing unit; and

installing said processing unit so that said beam line passes through said aperture;

wherein said step of providing an aperture comprises:

providing an aperture that does not block said beam line during said step of installing.

12. (original) A method in accordance with claim 11 wherein said processing unit further includes a moveable portion, said step of providing an aperture that does not block said beam line during said step of installing comprising the sub steps of:

moving said movable portion out of the way of said beam line during installation; and

replacing said movable portion after installation.

13. (previously presented) A method in accordance with claim 11 wherein each processing unit includes a board and a movable probe, said method further including the step of aligning said probe in said beam line by moving the probe relative to the board.

14. (previously presented) A processing unit in accordance with claim 1 wherein said processing unit includes a movable portion that moves relative to a remainder of the processing unit, the movable portion defining part of the aperture through which said beam line passes, the movable portion being adapted to occupy a first position during installation so that no portion of the beam line is blocked during the installation, the movable portion being adapted to occupy a second position after installation so that the movable portion in combination with the remainder of the processing unit defines the aperture that substantially surrounds the beam line.

15. (previously presented) A processing unit in accordance with claim 1 wherein said processing unit includes a board, said aperture formed at an edge of the board and configured to encircle a substantial portion but not all of said beam line when the board is installed.

16. (previously presented) A method in accordance with claim 11 wherein the step of installing further comprises the step of moving a portion of a structure that defines a portion of the aperture to a first position during installation so that no portion of the beam line is blocked during the installation, and moving said portion of the structure to a second position after installation so that said portion comprises part of the aperture that substantially surrounds the beam line.

17. (previously presented) A method in accordance with claim 11 wherein each processing unit includes a board and the step of installing further comprises the step of moving the board having an aperture disposed along an edge of the board to an installed position so that no portion of the beam line is blocked at any time during the installation, the aperture surrounding a substantial portion but not all of the beam line.

18. (new) The processing unit of claim 1 wherein said aperture receives the free space beam line as propagated in air prior to and after passing through said aperture.

19. (new) The method for installing and removing processing units of claim 11 further comprising the step of the free space beam line being propagated in air prior to entering said aperture and being propagated in air after passing through said aperture.